



# ecology and environment, inc.

CLOVERLEAF BUILDING 3, 6405 METCALF, OVERLAND PARK, KANSAS 66202, TEL. 913/432-9961

International Specialists in the Environment

## MEMORANDUM

*original to RCRA 8/30/90*

NO: SAFETY KLEEN
MOD: MOD096714829
DATE: 1/5
SIGN: 8-23-90

TO: Pete Culver, RPO

THRU: Sharon Martin, AFITOM

FROM: E & E/FIT

DATE: August 23, 1990

SUBJECT: Summary and Recommendations for the Safety-Kleen Corporation site, Brentwood, St. Louis County, Missouri.

TDD #F-07-9003-006

PAN #FM00905RA

Site #S18

Project #001

Superfund Contact: Greg Reesor

RCRA Contact: Patricia Nichols

FIT Project Leader: Rob Parsons

40141892



## INTRODUCTION

SUPERFUND RECORDS

As a part of the U.S. Environmental Protection Agency (EPA) Environmental Priorities Initiative (EPI) program, EPA has requested Ecology and Environment, Inc., Field Investigation Team (E & E/FIT) to conduct an EPI Preliminary Assessment (PA) of the former Safety-Kleen facility located at 1227 Hanley Industrial Center, Brentwood, Missouri.

The scope of the investigation included reviewing existing state and federal files and other literature to characterize regulated and non-regulated solid waste management units (SWMUs) at the facility and to assess the probability of release(s) of hazardous substances from identified SWMUs to the local environment. The FIT conducted an on-site Visual Site Inspection (VSI) on April 30, 1990, to aid in identifying and characterizing SWMUs.

## SITE SUMMARY

The Brentwood Safety-Kleen facility was in operation from August 1980 to February 1985 as a temporary storage and transfer point for products, and spent materials derived from product use by customers. The facility operated under a 1980 Part A notification and a revised 1985 Part A notification.

Safety-Kleen was situated with several other businesses in a one-story brick and mortar warehouse complex located about 1/2 mile north of Highway 100 and 1/4 mile west of Hanley Road. Safety-Kleen occupied the north two sections of the complex. The building housed offices and a warehouse for product and waste storage. The drum storage area was the

only SWMU located inside the warehouse. In the rear parking lot, the facility maintained a return/fill station, and four underground storage tanks utilized for product and waste storage. A brief description of these features is provided below. The return/fill station and two underground storage tanks were determined to be former SWMUs.

#### **Solid Waste Management Units**

The Drum Storage Area, the only SWMU identified within the warehouse, consisted of a 30-foot by 5-foot area located inside the warehouse. This area was capable of storing 188, 16-gallon immersion cleaner drums and 12, 16-gallon mineral spirits (dumpster mud) drums. Types of wastes stored in this area included spent halogenated solvents (F002), cresylic acid (F004), characteristic flammable wastes (D001), characteristic lead-containing wastes (D008), and spent non-halogenated solvents (F003 and F005). No type of containment was noted for this area.

Other former SWMUs identified were two underground storage tanks and a return/fill station. These tanks, with respective capacities of 6,000 and 10,000 gallons, were utilized for the storage of spent mineral spirits. Contaminated soil was excavated and removed with the tanks during closure of the facility. A return/fill unit was located behind the facility with the tanks. The return/fill station measured 10 feet by 10 feet and comprised a wet dumpster and associated equipment. Specific information on the return/ fill unit is not available.

#### **SUMMARY AND CONCLUSIONS**

Closure for this facility was initiated by Safety-Kleen on February 28, 1985, when plant operations ceased. The excavated soil associated with the removal of the two underground storage tanks was sampled; contaminated soil was removed until a level below background was achieved. Final closure was approved by the Missouri Department of Natural Resources (MDNR) on February 2, 1987.

This facility was in operation from August 1980 to February 1985. A review of state and federal files suggested there was a release from the underground storage tanks; however, additional file information indicated that the contaminated soil was removed and that the cleanup of the area was as stringent as possible.

Based on the fact that a removal has been conducted and that the state approved closure of this Safety-Kleen facility in 1985, E & E/FIT recommends that no further work be conducted at this site.

EPI-Preliminary Assessment  
Safety-Kleen

Brentwood, Missouri

TDD #F-07-9003-006 PAN #FM00905RA

Site #S18 Project #001

Prepared by: E & E/FIT for Region VII EPA

FIT Task Leader: Rob Parsons

RCRA Contact: Patricia Nichols

Date: August 23, 1990



# ecology and environment, inc.

CLOVERLEAF BUILDING 3, 6405 METCALF, OVERLAND PARK, KANSAS 66202, TEL. 913/432-9961

International Specialists in the Environment

TO: Pete Culver, RPO

THRU: Sharon Martin, AFITOM

FROM: E & E/FIT

DATE: August 23, 1990

SUBJECT: EPI Preliminary Assessment for the Safety-Kleen Facility site,  
Brentwood, Missouri.  
TDD #F-07-9003-006 PAN #FM00905RA  
Site #S18 Project #001  
Superfund Contact: Greg Reesor  
RCRA Contact: Patricia Nichols  
FIT Project Leader: Rob Parsons

## INTRODUCTION

As part of the U.S. Environmental Protection Agency (EPA) Environmental Priorities Initiative (EPI), EPA Region VII has requested Ecology and Environment, Inc., Field Investigation Team (E & E/FIT) to conduct an EPI Preliminary Assessment (PA) of Safety-Kleen located at 1227 Hanley Industrial Center, Brentwood, Missouri.

The EPI program integrates the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and Superfund Amendments and Reauthorization Act (SARA) in order to set priorities for cleanup of the most environmentally significant sites first. This EPI-PA is essentially equivalent to RCRA's Preliminary Review/Visual Site Inspection (PR/VSI) and identifies potential or actual release(s) at the facility and determines if corrective measures are necessary.

This report discusses information obtained from RCRA and Missouri Department of Natural Resources (MDNR) files and describes each regulated and non-regulated solid waste management unit (SWMU). Observations from the VSI conducted by E & E/FIT on April 30, 1990, also are included. Photographic documentation, EPA Preliminary Assessment Form 2070-12, and the closure certification for Safety-Kleen, Brentwood, Missouri, are included as attachments to this report.

## SITE DESCRIPTION AND HISTORY

This former Safety-Kleen facility was located at 1227 Hanley Industrial Center in Brentwood, Missouri (Figure 1). The Safety-Kleen Corporate headquarters is located at 777 Big Timber, Elgin, Illinois,

60123. Operations at the Brentwood facility commenced August 12, 1980, and continued for approximately six years. The facility ceased operations on February 28, 1985. Closure of the facility was completed on February 2, 1987 (Judge 1987).

This former Safety-Kleen facility was an accumulation and storage point for spent solvents generated by Safety-Kleen customers. The one-story building that housed the facility was situated in a light industrial area of the city. The building comprised several sections, with each section being utilized as an individual rental property. Safety-Kleen occupied the two sections at the north end of the main building, encompassing an area 50 feet by 120 feet (Figure 2). The facility consisted of offices and a warehouse area that was used to store solvent and spent solvent. A drum storage area in the warehouse measuring 30 feet by 5 feet was located adjacent to the center wall (Figure 2). This area was utilized for the storage of spent solvents and is the only SWMU identified at Safety-Kleen that was located inside the warehouse.

Beneath the parking lot behind the main building were four underground storage tanks. Two underground storage tanks were SWMUs with respective capacities of 6,000 and 10,000 gallons. These tanks once were used to store spent mineral spirits for a short period of time, before they were pumped into a tanker for transport to a recycling facility for processing. Figure 3 illustrates the general process used at Safety-Kleen facilities. In the parking lot near the underground storage location was a return/fill station. How this unit was utilized at this facility is unclear.

The Brentwood Safety-Kleen facility was a local sales/service office and warehouse that handled parts cleaning equipment, solvents, and allied products such as hand cleaner and floor cleaner. Wastes obtained from customers were RCRA wastes coded F002, F003, F004, F005, D001, and D008. Wastes were stored on site for less than 30 days. A maximum of 1,600 gallons of D001 and D008 wastes were processed annually; all other materials processed had a combined maximum of 2,000 gallons. Coded wastes D001 and D008 were stored in two underground storage tanks with a combined maximum capacity of 16,000 gallons. All other wastes were stored in the warehouse in drums or other types of containers (Safety-Kleen 1980; 1985b).

Following is a brief chronology of the compliance history of the Safety-Kleen Corporation site in Brentwood, Missouri.

August 12, 1980	Facility notifies EPA and MDNR of Hazardous Waste Activity.
October 31, 1980	EPA acknowledges Notification of Hazardous Waste Activity; EPA ID #MOD096714829.
November 24, 1980	Safety-Kleen submits application for a Part A Hazardous Waste Permit to EPA.

July 1981	EPA grants exemption to branch facilities from TSD requirements.
June 16, 1982	MDNR conducts a compliance inspection of the Safety-Kleen facility.
1983	No information
1984	No information
February 28, 1985	Safety-Kleen initiates closure of facility by ceasing all operations.
July 5, 1985	Safety-Kleen submits revised Part A application to comply with final rule definition of Hazardous Waste published January 4, 1985.
September 13, 1985	Safety-Kleen submits formal closure plan to MDNR.
November 27, 1985	MDNR accepts closure plan contingent on two proposed changes.
February 2, 1987	MDNR confirms and accepts final closure.
Current	ABC Mobile Brake occupies the facility; no hazardous waste activity apparent during April 1990 VSI.

#### **SOLID WASTE MANAGEMENT UNITS**

##### **Drum Storage Area**

###### Unit Description

The drum storage area occupied a 30-foot by 5-foot area inside the warehouse along the north side of the center wall. The floor of the building was constructed of concrete slab with expansion joints and no floor drains. During the VSI, the floor was observed to be in sound condition. Spent solvents were stored in this area for less than 90 days and then shipped to a recycling center for processing. This area had a storage capacity of 188, 16-gallon immersion cleaner drums and 12, 16-gallon mineral spirits (dumpster mud) drums. Inspection procedures for this unit during its period of operation are unknown.

Date of Start Up  
August 12, 1980

Date of Closure  
February 28, 1985

###### Wastes Managed

Wastes were stored for no longer than 30 days. Current file information does not provide any specific information regarding waste handling procedures. Wastes stored included spent halogenated solvents (F002), cresylic acid (F004) from immersion cleaners, characteristic

flammable wastes (D001), characteristic lead-containing wastes (D008), and spent non-halogenated solvents (F003 and F005)(Safety-Kleen 1985).

Release Controls

No file information is available that details the actual type of containment for this area at the time of facility operation. No containment features were observed during the April 1990 site visit.

History of Releases

Available file information provides no documentation or indication of releases from this unit.

Further Information Needs

None required at this time.

**Return/Fill Station**

Unit Description

This unit is composed of a dumpster and associated equipment. Specific details on this unit such as the capacity of the dumpster and descriptions of ancillary equipment are not available. Type of inspections and management practices are unknown.

Date of Start Up

August 12, 1980

Date of Closure

February 28, 1985

Wastes Managed

The type of wastes managed at this unit are unknown. File information on this unit does not provide any specific details on wastes managed.

Release Controls

No file information is available that details the actual type of containment for this area at the time of facility operation.

History of Releases

Available file information provides no documentation or indication of releases from this unit.

Further Information Needs

Further information needs on this unit include structural design, capacities, former containment features, and what type of wastes were managed.

**Underground Storage Tanks**

Unit Description

These two underground storage tanks were constructed of carbon steel and had respective capacities of 6,000 and 10,000 gallons (Safety-Kleen 1985a). The underground tanks were removed and contaminated soil was excavated during closure.

Date of Start Up  
August 12, 1980

Date of Closure  
February 28, 1985

Wastes Managed

Wastes managed and stored in the tanks included characteristic flammable waste (D001) and lead-containing wastes (D008). Wastes were derived from spent product from customers.

Release Controls

No file information is available that details the actual type of containment for this RCRA at the time of facility operation.

History of Releases

Available file information did provide data from samples taken during closure and removal of this unit which indicated a release in the subsurface soils around the tanks. A subsequent cleanup of this area occurred and was certified to be clean by the Missouri Department of Natural Resources (MDNR).

Further Information Needs

None required at this time.

**SUMMARY OF SITE VISIT**

The VSI of the former Safety-Kleen facility in Brentwood, Missouri, was conducted on April 30, 1990. The inspection was conducted by E & E/FIT personnel Rob Parson and Jim Fick and EPA representative Pat Nichols. Willard Haynes, Manager of ABC Mobile Brake (current occupant), was present during the VSI. Site conditions were documented with photographs; the photographic record is attached to this memorandum (Table 1). All identified areas involved in past waste management activities were inspected. Only one SWMU was identified on site; a former drum storage area located in the north section of the warehouse now used by ABC to store parts and equipment (Photo 1). The parking lot behind the warehouse was identified as the location for two former SWMUs. The return/fill station also was identified as a former SWMU.

A brief discussion of the VSI was held by E & E/FIT personnel and the current tenant. No pertinent information was revealed during this interview.

**SUMMARY AND CONCLUSIONS**

On April 30, 1990, a VSI was conducted by the E & E/FIT in support of the EPI/PA at the former Safety-Kleen Corporation storage and transfer facility in Brentwood, Missouri. The scope of the EPA/PA was to identify and characterize potential and actual releases from SWMUs at the facility. The former Safety-Kleen facility was a transfer and storage point for spent solvents and other ancillary materials intended for recycling.



## BIBLIOGRAPHY

Jurezak, Ellen J., Professional Engineer, Safety-Kleen Corporation, September 10, 1985, Letter to Missouri Department of Natural Resources, Waste Management Division.

Judge, Tom, Enforcement Section, Waste Management Program, Missouri Department of Natural Resources, February 2, 1987, Letter to Safety-Kleen, Certification of Closure for Safety-Kleen, Brentwood, Missouri.

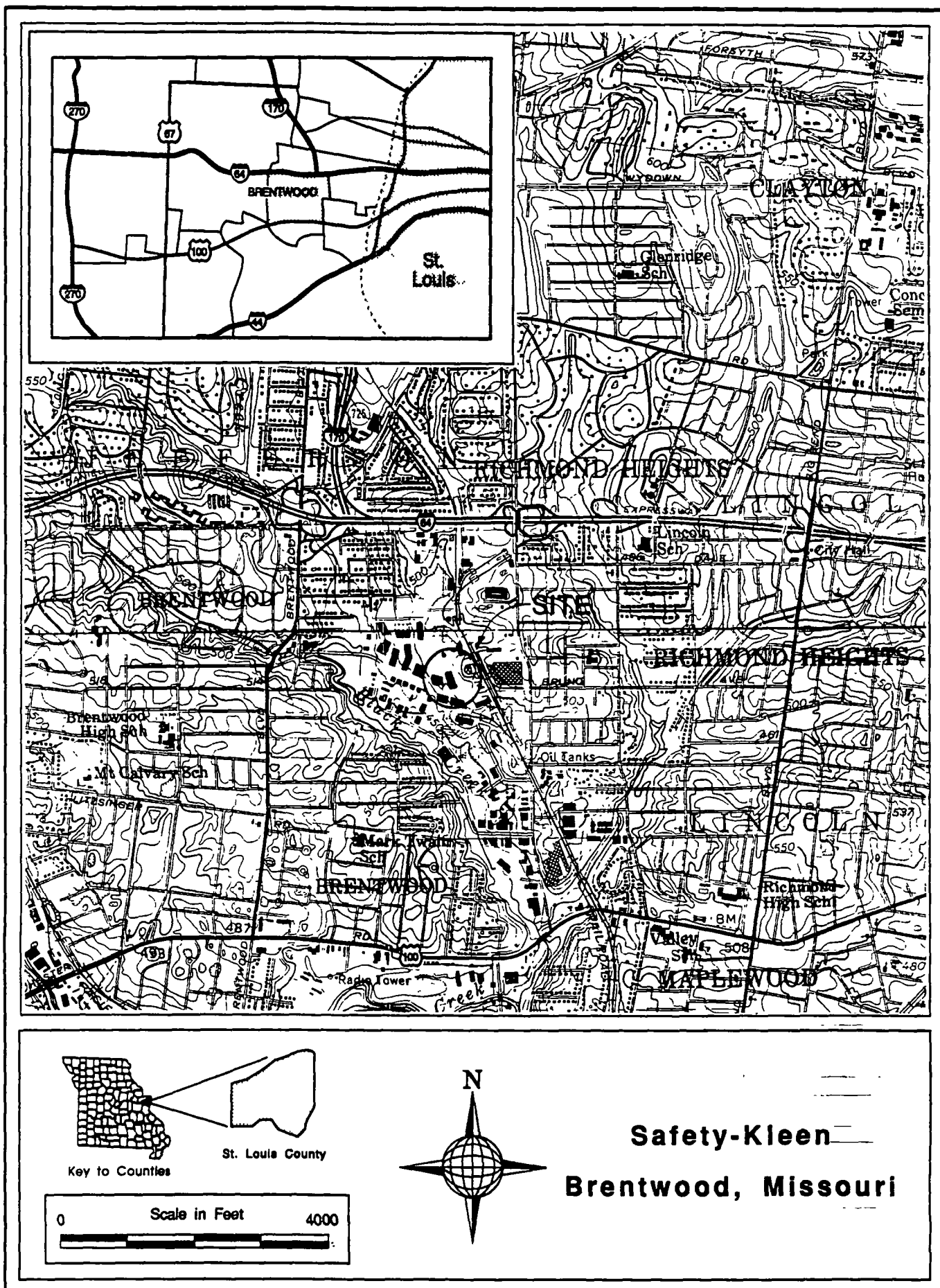
Brown, Harold, T., Professional Engineer, Burns & McDownell Engineering, January 9, 1987, Letter to Arthur H. Groner, Waste Management Program, Missouri Department of Natural Resources.

Safety-Kleen Corporation, September 10, 1985, Closure Plan for the Brentwood, Missouri, facility.

U.S. Geological Survey, 1974, 7.5 Minute Series Topographic Map, Webster Grove Quadrangle, Missouri, Washington, D.C.

Safety-Kleen Corporation, November 24, 1980, Part A Permit Application.

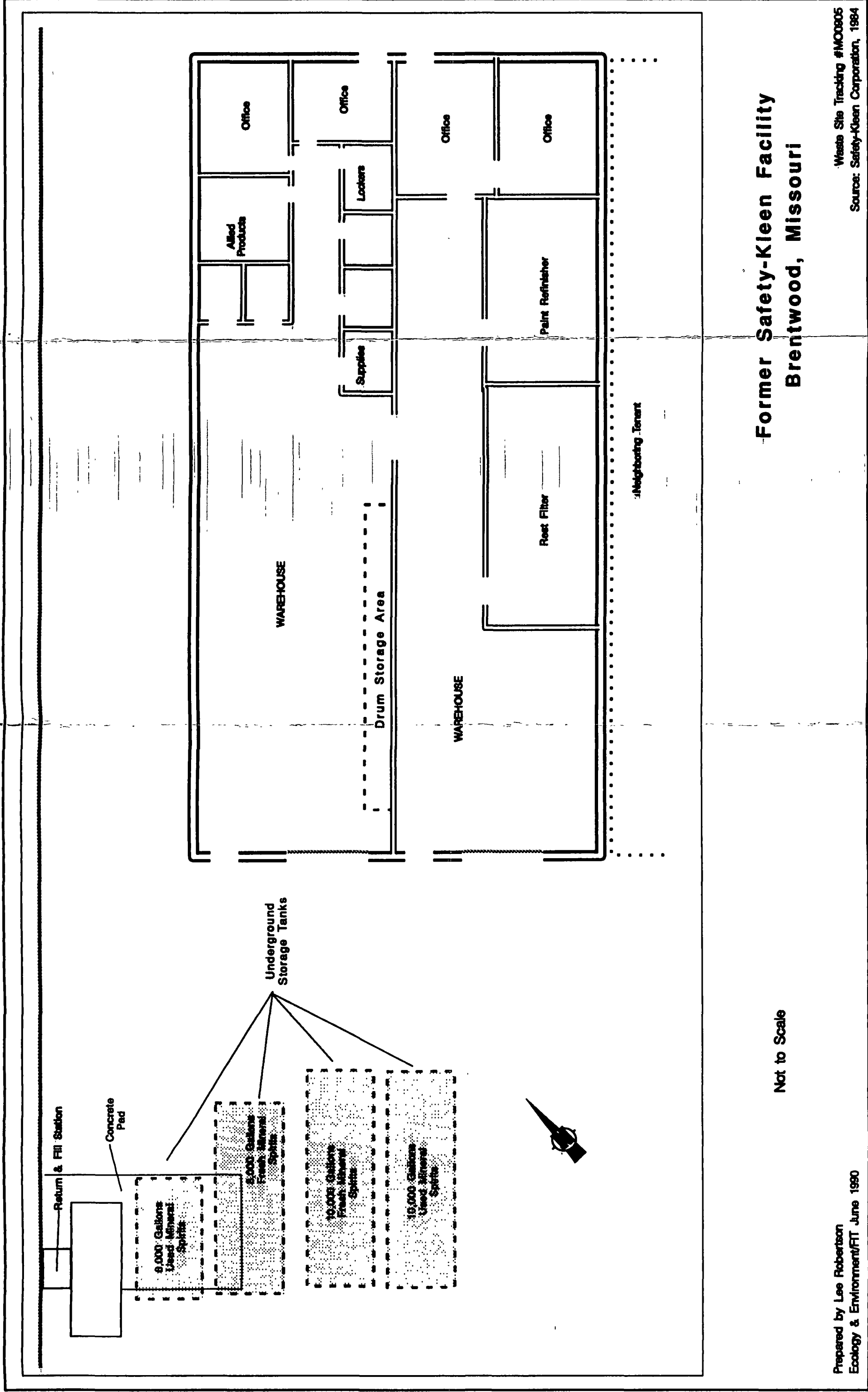
Safety-Kleen Corporation, August 19, 1985, Revised Part A permit Application.



Prepared by Lee Robertson  
Ecology & Environment/FIT June 1980

Waste Site-Tracking: MO0905  
Source: USGS 7.5' Webster Grove Quad. rev. 1974

Figure 1: SITE LOCATION



# Safety-Kleen Solvent Use & Regeneration Loop

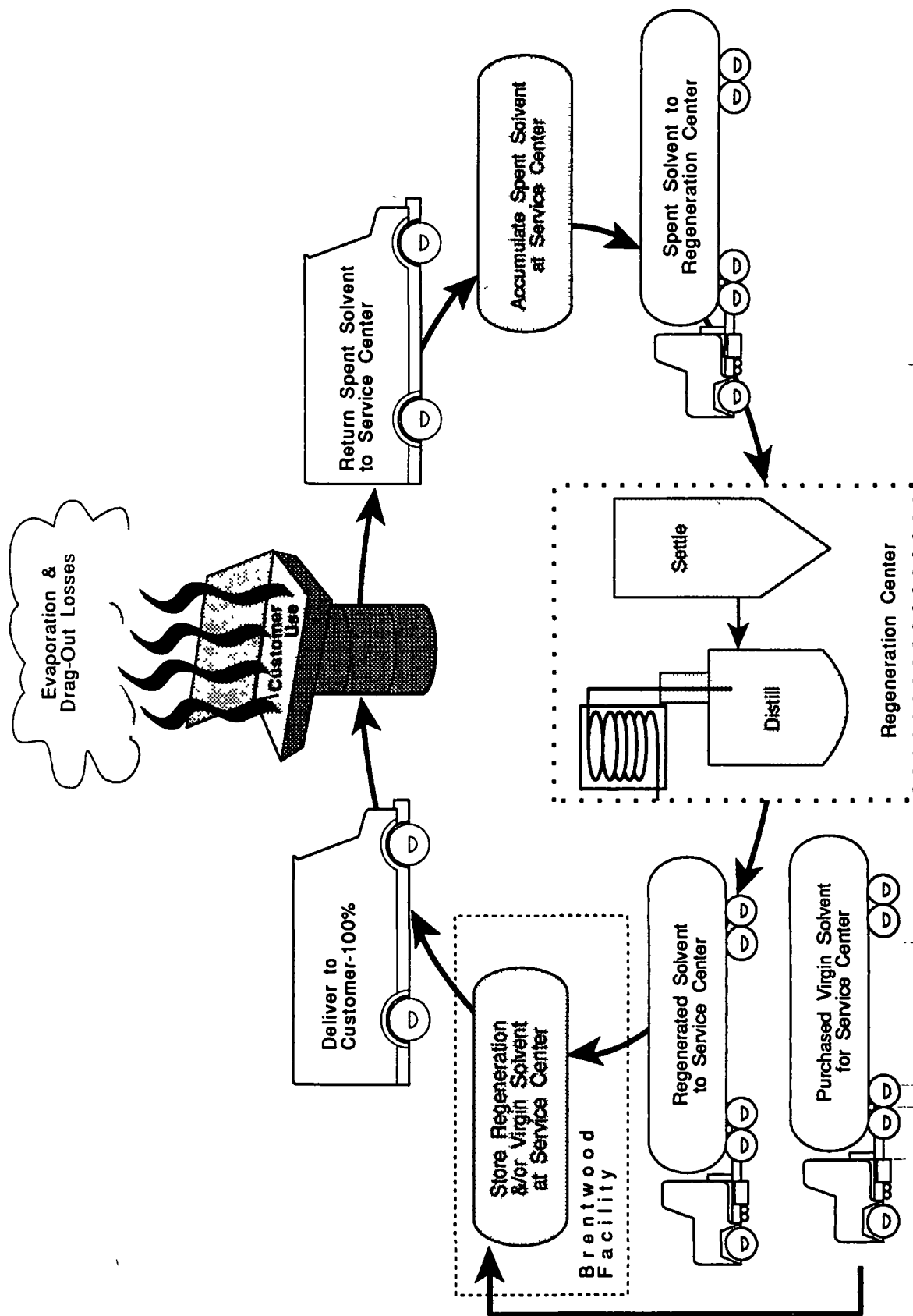


Figure 3

Table 1  
Photo Summary  
Safety-Kleen Corporation  
Brentwood, Missouri  
E & E/FIT; April 30, 1990

Photo Number	Photo Description
1	Former Drum Storage Area
*2	Former Underground Storage Tank Location
*3	Former Underground Storage Tank Location
*4	Former Underground Storage Tank Location

\* Photo provides a panoramic view of underground storage tank location



## PRELIMINARY ASSESSMENT

## PART 2 - WASTE INFORMATION

## I. IDENTIFICATION

01 STATE  
MO

02 SITE NUMBER  
MO0096714829

## II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

## 01 PHYSICAL STATES

(Check all that apply)

X A. SOLID                      X E. SLURRY

B. POWDER, FINES X F. LIQUID

X C. SLUDGE G. GAS

**D. OTHER**

(Specify)

(Specify)

## 02 WASTE QUANTITY AT SITE

(Measures of waste quantities must be independent)

**TONS**

CUBIC YARDS unknown

NO. OF DRUMS

### 03 WASTE CHARACTERISTICS

(Check all that apply)

X A. TOXIC

### E. SOLUBLE

X I. HIGHLY VOLATILE

**B. CORROSIVE**

**F. INFECTIOUS**

**J. EXPLOSIVE**

### C. RADIOACTIVE

X G. FLAMMABLE

K. REACTIVE

X D. PERSISTENT

X H. IGNITABLE

### L. INCOMPATIBLE

M. NOT APPLICABLE

### III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		
OLW	OILY WASTE	unknown		
SÔL	SOLVENTS	unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	unknown		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

**IV. HAZARDOUS SUBSTANCES** (See Appendix for most frequently cited CAS Numbers)

[illegible]

#### V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		-
FDS			FDS		
FDS			FDS		
FDS			FDS		-

**VI. SOURCES OF INFORMATION** (Cite specific references, e.g., state files, sample analysis, reports)

EPA/RCRA files  
Missouri Department of Natural Resources files  
E & E/FIT files

## POTENTIAL HAZARDOUS WASTE SITE

## PRELIMINARY ASSESSMENT

### **PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS**

01 STATE  
MO

02 SITE NUMBER  
MO0096714829 -

## II. HAZARDOUS CONDITIONS AND INCIDENTS

01	I. POPULATION EXPOSURE/INJURY	02	OBSERVED (DATE: _____)	POTENTIAL	ALLEGED
03	POPULATION POTENTIALLY AFFECTED: _____	04	NARRATIVE DESCRIPTION		
	None known				



## POTENTIAL HAZARDOUS WASTE SITE

## I. IDENTIFICATION

EPA

## PRELIMINARY ASSESSMENT

01 STATE MO 02 SITE NUMBER MO0096714829

## PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

## II. HAZARDOUS CONDITIONS AND INCIDENTS (CONTINUED)

01    J. DAMAGE TO FLORA 02    OBSERVED (DATE:           )    POTENTIAL    ALLEGED  
 04 NARRATIVE DESCRIPTION  
 N/A

01    K. DAMAGE TO FAUNA 02    OBSERVED (DATE:           )    POTENTIAL    ALLEGED  
 04 NARRATIVE DESCRIPTION (Include name(s) of species)  
 N/A

01    L. CONTAMINATION OF FOOD CHAIN 02    OBSERVED (DATE:           )    POTENTIAL    ALLEGED  
 04 NARRATIVE DESCRIPTION  
 N/A

01    M. UNSTABLE CONTAINMENT OF WASTES 02    OBSERVED (DATE:           )    POTENTIAL    ALLEGED  
 (Spills/runoff/standing liquids/leaking drums)  
 03 POPULATION POTENTIALLY AFFECTED:                      04 NARRATIVE DESCRIPTION  
 Unknown

01    N. DAMAGE TO OFF-SITE PROPERTY 02    OBSERVED (DATE:           )    POTENTIAL    ALLEGED  
 04 NARRATIVE DESCRIPTION  
 Unknown

01    O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02    OBSERVED (DATE:           )    POTENTIAL    ALLEGED  
 04 NARRATIVE DESCRIPTION  
 Unknown

01    P. ILLEGAL/UNAUTHORIZED DUMPING 02    OBSERVED (DATE:           )    POTENTIAL    ALLEGED  
 04 NARRATIVE DESCRIPTION  
 Unknown

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED:   8,200  

## IV. COMMENTS

Final closure for this site was accomplished February 2, 1987. All contaminated soil was removed. No further closure actions required.

## V. SOURCES OF INFORMATION (Cite specific references. e.g., state files, sample analysis, reports)

EPA/RCRA files  
 Missouri Department of Natural Resources files  
 E & E/FIT files



**ecology and environment, inc.**

## PHOTOGRAPHIC RECORD

SITE NAME: Safety-Kleen

SITE LOCATION: Brentwood, MO

TDD/PAN#: F-07-9003-006/FM00905RA

No.: 3

Subject

Former Underground  
Storage Tank  
Location

Photographer

Jim Fick

Witness

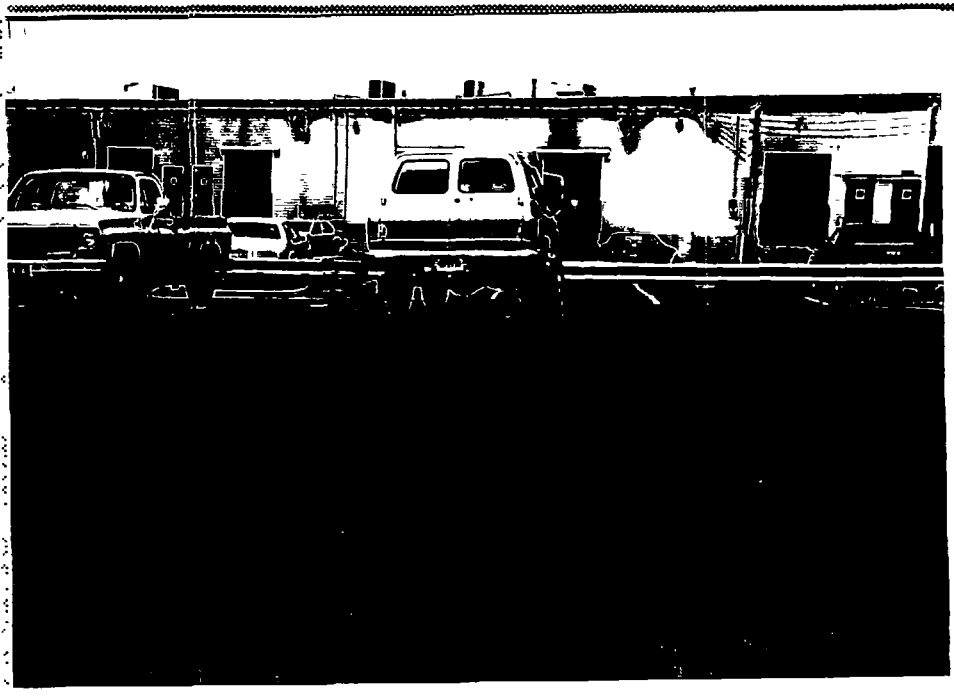
Rob Parsons

Date/Time

13:30/April 30, 1990

Direction

North



No.: 4  
Subject

Former Underground  
Storage Tank  
Location

Photographer

Jim Fick

Witness

Rob Parsons

Date/Time

13:32/April 30, 1990

Direction

North West





**ecology and environment, inc.**

## PHOTOGRAPHIC RECORD



SITE NAME: Safety-Kleen  
SITE LOCATION: Brentwood, MO  
TDD/PAN#: E-07-9003-006/FM00905RA

No.:  
Subject 1

Former Drum Storage Area.

Photographer

Jim Fick

Witness

Rob Parsons  
Date/Time

13:22/April 30, 1990

Direction

East

No.: 2  
Subject

Former Underground  
Storage Tank Location

Photographer

Jim Fick

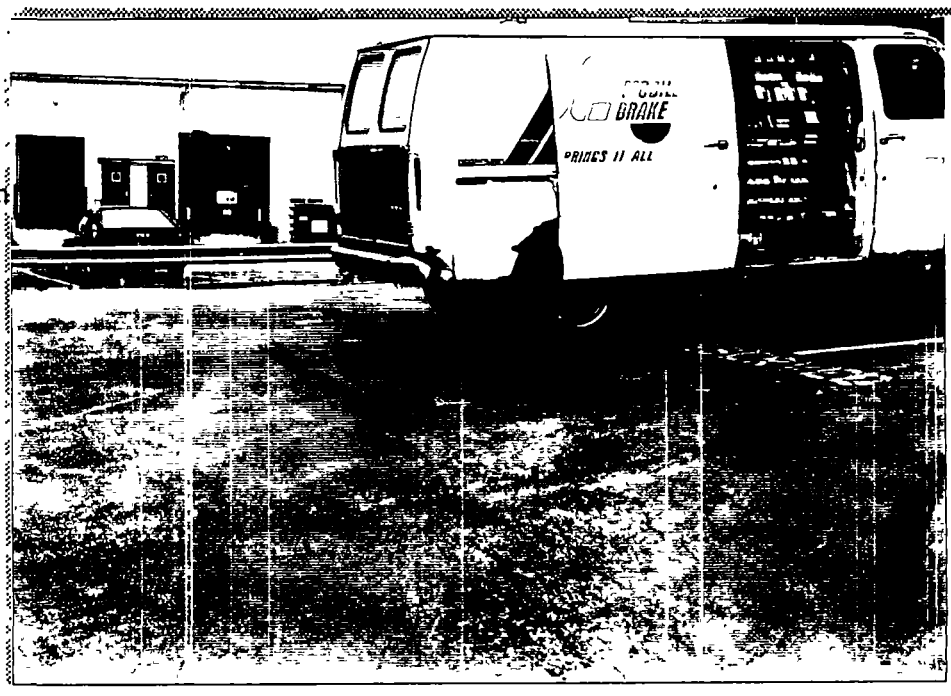
Witness

Rob Parsons  
Date/Time

13:29/April 30, 1990

Direction

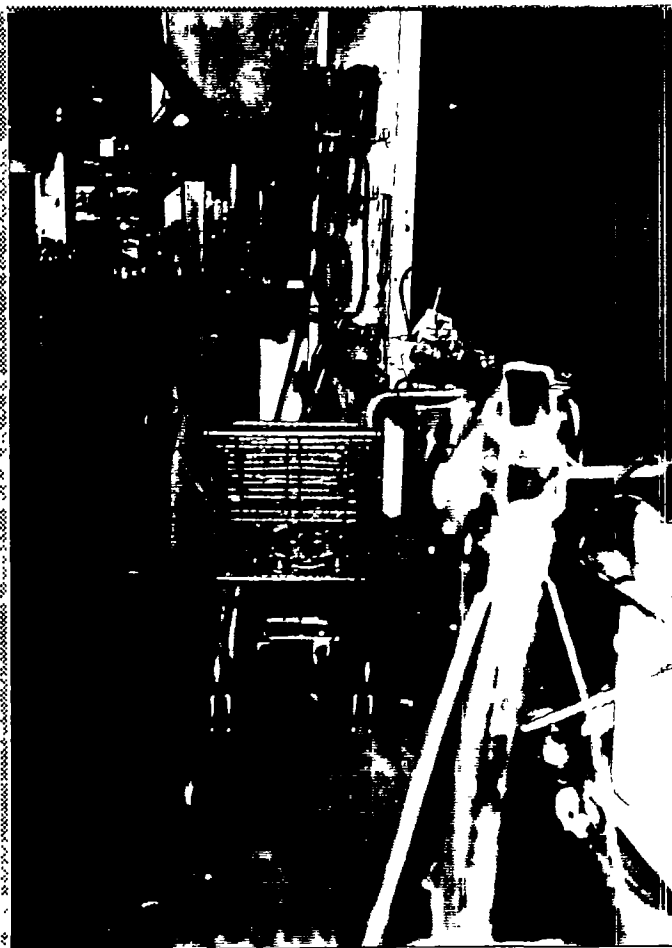
North East





**ecology and environment, inc.**

## PHOTOGRAPHIC RECORD



SITE NAME: ....Safety....Kleen.....  
SITE LOCATION: Brentwood, MO  
TDD/PAN#: F-07-9003-006/FM00905RA

No.: 1  
Subject

Former Drum Storage Area.

Photographer

Jim Fick

Witness

Rob Parsons

Date/Time

13:22/April 30, 1990

Direction

East

No.: 2  
Subject

Former Underground  
Storage Tank Location

Photographer

Jim Fick

Witness

Rob Parsons

Date/Time

13:29/April 30, 1990

Direction

North East





**ecology and environment, inc.**

**PHOTOGRAPHIC RECORD**

SITE NAME: Safety - Kleen  
SITE LOCATION: Brentwood, MO  
TDD/PAN#: F-07-9003-006/FM00905RA

No.: 3

Subject

Former Underground Storage  
Tank Location

Photographer

Jim Fick

Witness

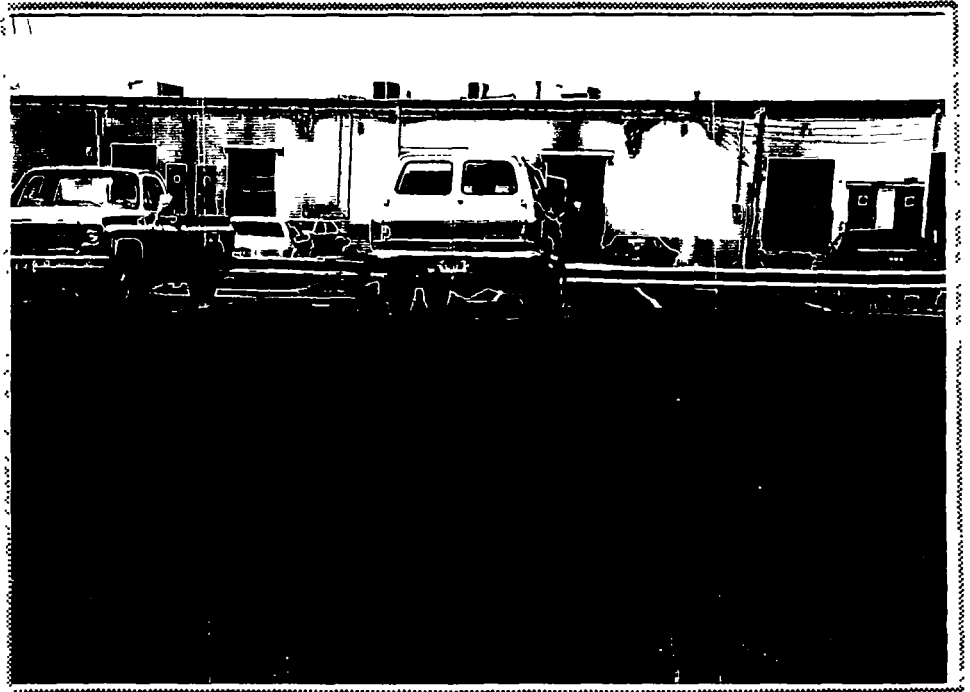
Rob Parsons

Date/Time

13:30/April 30, 1990

Direction

North



No.: 4

Subject

Former Underground  
Storage Tank Location

Photographer

Jim Fick

Witness

Rob Parsons

Date/Time

13:32/April 30, 1990

Direction

North West

